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Julius Knapp
Chief, Office of Engineering and Technology
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: WT Docket No. 07-293
WRITTEN EX PARTE COMMUNICATION

Dear Mr. Knapp:

As one of the world's leading vendors of wireless broadband equipment for the 2.3 GHz band, Alvarion would like to add to the record in WT Docket No. 07-293 its perspective on the out-of-band emissions (OOBE) attenuation requirements that the Commission is considering to impose on Wireless Communications Service (WCS) licensees. Alvarion understands that a proposal under consideration would require WCS licensees to attenuate their base station OOBE by a minimum of 75+10log(p) below 2305 MHz and above 2360 MHz. To our opinion, adoption of this proposal will have a material adverse impact on the ability of WCS licensees to provide a viable broadband service in the United States.

Under the Commission's current rules for governing WCS base stations (Section 27.53(a)), OOBE must be attenuated by 43+10log(p) at 2305 MHz and 2360 MHz (the outer edges of the WCS band) and by 70+10log(p) below 2300 MHz and above 2370 MHz. In other words, the proposal under consideration would increase the required attenuation at 2305 MHz and 2360 MHz by 32 dB. To Alvarion's knowledge, there are no commercially available filters that would satisfy this requirement without requiring the licensee to back its signal 2.5 MHz away from the WCS band edge. Therefore, adoption of this proposal will preclude the use of the 2305-2307.5 MHz and 2357.5-2360 MHz bands, limiting them to use as guardband in the foreseeable future.

Moreover, requiring that 5 MHz of scarce WCS spectrum be devoted to these two guardbands may also preclude the use of additional WCS spectrum for wireless broadband. As an example, if an A block (2305-2310/2350-2355 MHz) licensee is precluded from utilizing the 2305-2307.5 MHz band to meet the 70+10log(p) OOBE restriction at 2305 MHz, it will be left with only 2.5 MHz of spectrum in the lower A block. The remaining 2.5 MHz are too narrow to support any of the 4G wireless broadband channel profiles that are available in the market, and thus the entire 5 MHz at 2305-2310 MHz is likely to be stranded by the licensee. While an A block licensee could utilize its 5 MHz of upper A block spectrum for a 5 MHz channel, that is not enough spectrum, standing alone, to serve as an effective platform for broadband services. As a practical matter, adoption of this proposal, coupled with the proposed ban on using the 2317.5-2320 MHz and 2345-2347.5 MHz bands for mobile service, would preclude WiMAX mobile broadband offerings in the WCS band except where a single licensee is able to consolidate either the three lower channels or the three upper channels, and bond them into a single 10 MHz channel.

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As an alternative to these proposed OOBE restrictions, Alvarion suggests that the Commission would retain the existing base station OOBE limit of 43+10log(p) at 2300-2305 MHz and 70+10log(p) below 2300 MHz. While we are aware that it might be a challenge to meet this requirement, which is stricter in the United States than in other countries, we believe that we are able to meet it by utilizing state-of-the-art filter designs. In addition, Alvarion suggests that the Commission tighten the current OOBE limits above 2360 MHz for base stations as follows:

2360-2362.5 MHz: 43+10log(P)
2362.5-2365 MHz: 55+10log(P)
2365-2367.5 MHz: 70+10log(P)
2367.5-2370 MHz: 72+10log(P)
2370 MHz and above: 75+10log(P)

To our opinion, this tightening would provide additional protection to AMT operations beyond that provided under the current rules. Again, compliance with this proposal will prove challenging given the current state-of-the art in practical filter design, but can be achieved without requiring that scarce spectrum be set aside for guardband.

We thank you for your consideration of our views regarding the pending proposed OOBE restrictions.

Respectfully,

Dana Nehama
VP Product management
Alvarion, Inc.

D. Nehama

cc: Office of the Secretary (via ECFS)

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